

# Mecklenburg County Common Code Defects

## Core Process Plumbing

### Code Defects

- Pipe Support missing or incorrect

### Code Description

#### PIPING SUPPORT

**308.1 General.** All plumbing piping shall be supported in accordance with this section.

**308.2 Piping seismic supports.** Where earthquake loads are applicable in accordance with the building code, plumbing-piping supports shall be designed and installed for the seismic forces in accordance with the International Building Code.

**308.3 Materials.** Hangers, anchors and supports shall support the piping and the contents of the piping. Hangers and strapping material shall be of approved material that will not promote galvanic action.

**308.4 Structural attachment.** Hangers and anchors shall be attached to the building construction in an approved manner.

**308.5 Interval of support.** Pipe shall be supported in accordance with Table 308.5., or the manufacturers' installation instructions.

EXCEPTION: The interval of support for piping systems designed to provide for expansion/contraction shall conform to the engineered design in accordance with 105.4.

**TABLE P308.5  
HANGER SPACING**

Piping Material	Maximum Horizontal Spacing (feet)	Maximum Vertical Spacing (feet)
Abs pipe	4	10 <sup>b</sup>
Aluminum tubing	10	15
Brass pipe	10	10
Cast iron pipe <sup>a</sup>	5	15
Copper or copper-alloy pipe	12	10
Copper or copper-alloy tubing,	10	10

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1 ¼-inch diameter		
Cross-linked polyethylene (PEX) pipe	2.67 (32 inches)	10 <sup>b</sup>
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	2 2/3 (32 inches)	4
CPVC pipe or tubing, 1 inch or smaller	3	10 <sup>b</sup>
CPVC pipe or tubing, 1 ¼-inch or larger	4	10 <sup>b</sup>
Steel pipe	12	15
Lead pipe	Continuous	4
PB pipe or tubing	2.67 (32 inches)	4
Polyethylene/aluminum/polyethylene (PE-AL-PE) pipe	2.67 (32 inches)	4
PVC pipe	4	10 <sup>b</sup>

For SI: 1 inch = 25.4 mm,  
1 foot = 304.8 mm.

{a} The maximum horizontal spacing of cast-iron pipe hangers shall be increased to 10 feet where 10-foot lengths of pipe are installed.

{b} Midstory guide for sizes 2 inches and smaller.

**308.6 Sway bracing.** Rigid support sway bracing shall be provided at changes in direction greater than 45 degrees (0.79 rad) for pipe sizes 4 inches (102 mm) and larger.

**308.7 Anchorage.** Anchorage shall be provided to restrain drainage piping from axial movement.

**308.7.1 Location.** For pipe sizes greater than 4 inches (102 mm), restraints shall be provided for drain pipes at all changes in direction and at all changes in diameter greater than two pipe sizes. Braces, blocks, rodding and other suitable methods as specified by the coupling manufacturer shall be utilized.

**308.8 Expansion joint fittings.** Expansion joint fittings shall be used only where necessary to provide for expansion and contraction of the pipes. Expansion joint

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fittings shall be of the typical material suitable for use with the type of piping in which such fittings are installed.

**308.9 Stacks.** Bases of stacks shall be supported by concrete, brick laid in cement mortar or metal brackets attached to the building or by other approved methods.

**308.10 Parallel water distribution systems.** Piping bundles for manifold systems shall be supported in accordance with Table 308.5. Support at changes in direction shall be in accordance with the manufacturer's installation instructions. Hot and cold water piping shall not be grouped in the same bundle.

***Disclaimer: There may be other ways to comply with the Code. If so, you are not required to use this method to comply with the Code. You may want to investigate other options, or consult with a design professional identifying an equally code compliant solution.***

### End Notes

North Carolina Plumbing Code & North Carolina Mechanical Code & North Carolina Fuel Gas Code.  
International Code Council  
Southern Building Code Congress